

ABSTRACT

A packet transmit queue control system including a first data structure, a second data structure, a packet controller, and a port transmit controller is disclosed. The first data structure can include a plurality of linked-list data structures and can store unicast type packet pointers. The second data structure can include a plurality of first-in first-out (FIFO) structures and can store multicast type packet pointers. The packet controller can receive a first sequence of unicast and/or multicast type packets. The port transmit controller can provide a second sequence of the unicast and/or multicast type packets. Further, each of the plurality of FIFO structures can correspond to an output port of the system.